WHAT IS CLAIMED IS:

1. An embolic protection device for capturing embolic debris released into a body vessel of a patient, comprising:

a shaft member having a distal and a proximal end; and

a filtering assembly rotatably mounted on the shaft member near the distal end thereof, the filtering assembly including an expandable strut assembly and a filter attached to the strut assembly for capturing embolic debris, the filtering assembly being mounted on an outer tubular member which is coaxially disposed over an inner tubular member having a length shorter than the outer tubular member, wherein one end of the inner tubular member is adapted to abut against the stop fitting located on the shaft member for limiting axial movement of the filtering assembly along the guide wire.

2. The embolic protection device of claim 1, wherein:

the shaft member is a guide wire and includes a distal spring tip coil, the spring tip coil serving as the stop fitting which abuts against the inner tubular member.

3. The embolic protection device of claim 2, wherein:

the guide wire includes a second stop fitting in an abutting relationship with the proximal ends of the outer and inner tubular members.

4. The embolic protection device of claim 2, wherein:

the outer tubular member extends over a portion of the spring tip coil of the guide wire.

5. The embolic protection device of claim 2, wherein:

the outer and inner tubular members are made from polyimide.

6. An embolic protection device for capturing embolic debris released into a body vessel of a patient, comprising:

a shaft member having a distal end and a proximal end; and

a filtering assembly mounted near the distal end of the shaft member, the filtering assembly including an expandable strut assembly and a filter attached to the strut assembly for capturing embolic debris, wherein the strut assembly has a distal end with an obturator attached thereto.

7. The embolic protection device of claim 6, wherein:

the distal end of the strut assembly is mounted to a tubular member permitting the distal end of the strut assembly to rotate about the shaft member, the obturator having a tapered distal end and a proximal end which extends over a portion of the strut assembly and a portion of the tubular member.

8. The embolic protection device of claim 7, further including:

a restraining sheath extendable over the filtering assembly which cooperates with the obturator to create a composite lumen which extends substantially along the length of the shaft member that is capable of receiving a liquid for purging any trapped air bubbles from the lumen.

9. The embolic protection device of claim 6, wherein:

the distal end of the strut assembly terminates at a collar which is attached to the obturator.

10. The embolic protection device of claim 7, wherein:

the obturator is made from a soft polymeric material.

11. An embolic protection device for capturing embolic debris released into a body vessel of a patient, comprising:

a shaft member having a distal end and a proximal end;

a filtering assembly mounted on the shaft member near the distal end thereof, the filtering assembly including an expandable strut assembly and a filter attached thereto for capturing embolic debris, the strut assembly including a set of struts attached to a deployment member which is moveable with the struts between a collapsed position and an expanded position to open and close the filter; and

a restraining sheath adapted to be placed collapsibly over the filtering assembly to maintain the strut assembly in a collapsed position, wherein the lengths of the struts of the strut assembly vary from one another.

12. The embolic protection device of claim 11, wherein:

the deployment member is made from a self-expanding material.

13. The embolic protection device of claim 11, wherein:

the filter has a front edge having a wave configuration for attachment to the deployment member.

14. The embolic protection device of claim 11, wherein:

the struts of the strut assembly and the deployment member are made from a singe tubular segment of self-expanding alloy which are laser cut to form the individual struts and deployment member.

15. The embolic protection device of claim 14, wherein:

the segments of the deployment member attached to each of the struts of the strut assembly bend distally convexly when the strut assembly is collapsed.

16. An embolic protection device for capturing embolic debris released into a body vessel of a patient, comprising:

a shaft member having a distal end and a proximal end;

a filtering assembly mounted on the shaft member near the distal end thereof, the filtering assembly including an expandable strut assembly and a filter attached to the strut assembly for capturing embolic debris; and

a dampening element associated with the filtering assembly for at least partially absorbing some vibratory motion which may be transmitted along the shaft member.

17. The embolic protection device of claim 16, wherein:

the dampening element is made from a different material from the material used to make the strut assembly.

18. The embolic protection device of claim 17, wherein:

the strut assembly has a proximal collar placed between a proximal and distal stop element located on the shaft member, the dampening element also being located between the distal and proximal stop elements.

19. The embolic protection device of claim 18, wherein:

the dampening element is a spring placed distally to the proximal collar of the strut assembly.

20. The embolic protection device of claim 18, wherein:

the dampening element is a spring placed proximally to the proximal collar of the strut assembly.

21. An embolic protection device for capturing embolic debris released into a body vessel of a patient, comprising:

a shaft member having a distal and a proximal end;

a filtering assembly mounted on the shaft member, the filtering assembly including an expandable strut assembly and a filter attached to the strut assembly for capturing embolic debris, the expandable strut assembly having a set of proximal struts, each strut having a first end and a second end; and

a deployment member having a pattern of alternating peaks and valleys in a wave-like pattern, each of the first ends of the struts being attached to the peak portions of the deployment member, the filter element being attached to the

deployment member and having a filter edge having alternating peaks and valleys in a wave-like pattern corresponding to the pattern of the deployment member, the filter element being moveable with the struts and deployment member so that at least a portion thereof contacts the wall of the vessel to capture embolic debris released into the body vessel.

22. The embolic protection device of claim 21, wherein:

the filtering assembly is rotatably mounted onto the shaft member.

23. The embolic protection device of claim 21, wherein:

the second end of each of the struts is attached to a proximal collar placed between a proximal stop element and a distal stop element attached to the shaft member for preventing axial movement of the proximal collar along the shaft member.

24. The embolic protection device of claim 23, wherein:

the set of struts and deployment member are made from a segment of tubing made from a self-expanding material which is laser cut to form the individual struts and deployment member.

25. The embolic protection device of claim 24, wherein:

the alternating peaks and valleys forming the wave-like pattern of the deployment member are substantially V-shaped.

26. A method for making a microporous filter for use in an embolic protection device, comprising:

dissolving a polymer in a solvent to produce a polymer/solvent solution;

depositing the polymer/solvent solution onto a mandrel to obtain a membrane having a desired shape and thickness; and

depositing a non-solvent onto the polymer/solvent solution before complete evaporation of the solvent occurs.

27. The method performing a microporous filter of claim 26, wherein:
the polymer/solvent solution is deposited by spraying it onto a mandrel.

28. The method for making a microporous filter of claim 26, wherein:
the polymer/solvent solution is deposited by casting it onto the mandrel.

29. The method for making a microporous filter of claim 26, wherein:
the mandrel is rotating as the polymer/solvent solution is deposited thereon.

30. The method for making a microporous of claim 26, wherein:
the non-solvent is deposited by spraying it onto the polymer/solvent solution.

31. The method for making a microporous of claim 26, wherein:
the non-solvent is deposited by dipping the polymer/solvent solution into a container containing a non-solvent before complete evaporation of the solvent occurs.

32. An embolic protection device for capturing embolic debris released into the body vessel of a patient, comprising:
a shaft member having a distal end and a proximal end;
a filtering element mounted on the shaft member near the distal end thereof, the filtering element including an expandable strut assembly and a filter attached to the strut assembly for capturing embolic debris, and
a layer of polymeric material having a coefficient of friction less than the coefficient of friction of the material of the strut assembly deposited on at least part of the strut assembly proximal to the filter.

33. The embolic protection device of claim 32, wherein:

the polymeric material is selected from the group consisting of PTFE, polyimide, and heparin.

34. The embolic protection device of claim 32, wherein:

the entire strut assembly is coated with the polymeric material.

35. The embolic protection device of claim 34, wherein:

the polymeric material is selected from the group consisting of PTFE, polyimide, and heparin.